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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/047,296 | 01/14/2002 | Albert Monroe Snider JR. | 1653A1 | 5170 |

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EXAMINER

HARRINGTON, ALICIA M

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------|-----------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/047,296 | SNIDER, ALBERT MONROE | |
| | Examiner | Art Unit | |
| | Alicia M Harrington | 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 13-20, 22, 23, 25, 26 and 32-36 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 7-12, 21, 24 and 27-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4&5</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 recites the limitation "the support" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

The claim will be examined as best understood by the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,5,6,13,16-19,22,23,25,32,33,35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Okajima et al (US 5,473,396).

Regarding claims 1,13, and 16, Okajima discloses an image projection system with a fluorescent screen (col. 2, lines 1-25;col. 10, lines 40-67) where a source emits light that is projected toward a fluorescent screen (see col. 3,lines 1-10;col. 4,lines 40-50; col. 11, lines 15-22 and col. 12, lines 15-26) to view an image in the visible light range.

Regarding claim 2, the fluorescent material (2) is carried in a TV/support (for example: see figure 2).

Regarding claim 5, the fluorescent screen (2) is a part of the TV/ support that is a single unit (see figure 2).

Regarding claim 6, a clear/transparent covering inherently protects the screen so that the user is not in direct contact with the fluorescent material.

Regarding claim 17, the projection assembly includes a lens array (66) or mask (50) to control how the light impinges the fluorescent display (see figure 7a and 7b).

Regarding claims 18-19, the projection assembly includes a lens (4) and reflective mirror (5; see figure 1).

Regarding claim 22, the screen is used in TV. A television signals inherently comes with an advertisement/ads between the shows.

Regarding claim 23, Okajima discloses an image projection system with a fluorescent screen (col. 2, lines 1-25; col. 10, lines 40-67) where a source emits light that is projected toward a fluorescent screen (see col. 3, lines 1-10; col. 4, lines 40-50; col. 11, lines 15-22 and col. 12, lines 15-26) to view an image in the visible light range.

Regarding claim 25, Okajima discloses the radiation source is controlled to emit light that corresponds to the emission of red, blue and green from the fluorescent material. The radiation is selectively directed (the light/wavelength that causes a green emission is directed at the fluorescent material where it is intended/designed to emit green) by projection assembly to the fluorescent material to provide a visible image (see figure 10, col. 19, lines 29-57).

Regarding claim 32-33, Okajima discloses an image projection system with a fluorescent screen (col. 2, lines 1-25; col. 10, lines 40-67) where a source emits light that is projected toward a fluorescent screen (see col. 3, lines 1-10; col. 4, lines 40-50; col. 11, lines 15-22 and col. 12, lines 15-26) to view an image in the visible light range

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Regarding claim 35-36, Okajima discloses the radiation source is controlled to emit light that corresponds to the emission of red, blue and green from the fluorescent material. The radiation is selectively directed (the light/wavelength that causes a green emission is directed at the fluorescent material where it is intended/designed to emit green) by projection assembly to the fluorescent material to provide a visible image (see figure 10, col. 19, lines 29-57).

Claims 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Berkstresser et al (US 4,757,232).

Regarding claim 32-34, Berkstresser discloses a display system (in figures 2-3) having at least one light emitting material (phosphor screen) having an absorption band (a material which emits visible light when the correct light impinges upon it); and a projection assembly (inherently the CRT contains a source for emitting a stream of radiation towards the phosphor screen; see col. 3, lines 10-20; col. 4, lines 20-45), to cause the material to emit light in the visible region.

Berkstresser goes on to state the electromagnetic light source or electron beam used in a projection system such as HUD.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Nestorovic et al (US 2002/0075210).

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Regarding claims 32-36, Nestorovic discloses a HUD system with a phosphor screen (1102) where laser diodes comprising a scanning projection assembly used to illuminate the phosphor screen to produce a visible image (see sections 58-61).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15,20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima.

Regarding claim 15, Okajima disclose using CRT displays (see figure 2) as the electromagnetic source. However, it is notoriously well known in the art to use laser or laser diode a display light source, and the Examiner takes official notice to this fact. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okajima, to provide a laser since they well known light sources in the art of displays and such are readily available and low cost light source.

Regarding claim 20, Okajima projection system fails to provide for a moving element. Each element is fixed. However, displays with moving mirrors to displace/direct the radiation on a screen are notoriously well known to the display art, and the Examiner takes official notice to that fact (for example: scanning mirrors). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okajima to provide a projecting

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system with moveable element, to direct radiation on the screen as such is well known in the art and is often used to provide a good still or moving image for displays.

Regarding claim 26, Okajima projection system fails to provide for a moving element. Each element is fixed. However, displays with moving mirrors to displace/direct the radiation on a screen are notoriously well known to the display art, and the Examiner takes official notice to that fact (for example: scanning mirrors). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okajima to provide a projecting system with moveable element, to direct radiation on the screen as such is well known in the art and is often used to provide a good still or moving image for displays. Further, in a TV display with a scanning element, it is notoriously well known to raster scan and horizontal retrace the screen to provide an image, the Examiner takes official notice to this fact. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okajima as claimed, since such a scan pattern is known in the art and provide for good quality TV display images.

Allowable Subject Matter

Claims 3, 4, 7-12, 21, 24, 27-31 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding allowable subject matter, prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the dependent claims, in such manner that a rejection under 35 U.S.C 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims, which include a display with fluorescent material and projection assembly for projecting electromagnetic radiation on the fluorescent material in the embodiments of a multiple laminated ply (claim 3) or automotive transparency (claim 7), or an HUD display system (claim 21), or directing the electromagnetic radiation according to the claimed energizing and denegizing method (claim 27) as claimed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thompson et al (US 6,303,238) discloses an OLED doped with phospherent compound;

Scarpino et al (US 3,723,805) discloses a distortion correction system;

Anderson et al (US 4,575, 722) discloses a magneto optic display;

Nakamachi et al (US 5,066,525) discloses a laminated glass panel incorporating a hologram sheet;

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Mays, Jr. et al (US 6,229,503) disclose a miniature personal display.

Uema (US 4,081,716) discloses a fluorescent display element); and

Ota (US 6,490,402) discloses a flexible flat color display.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 703 308 9295. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703 308 4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Alicia M Harrington
Examiner
Art Unit 2873

AMH
April 21, 2003


Georgia Epps
Supervisory Patent Examiner
Technology Center 2300